





Test Report SL52035285591101TX Date:August 24,2020

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CHANGZHOU SHUANGMA MEDICAL DEVICES CO., LTD 220 SANHE ROAD, ZHENGLU TOWN, TIANNING DISTRICT, CHANGZHOU CITY, DIANGSU PROVINCE

The following sample(s) was/were submitted and identified on behalf of the client as:

Sample Description : (A)Medical face mask (TYPE IIR)

SGS Internal Ref.No. : 15227738-1

Composition : (A)70% SPUNDBOND FABRIC,30% MELTBLOWN FABRIC

Sample Color : (A)Inner layer:white, Outer layer: blue Style No. : PLANAR EARLOOP 17.5*9.5CM

Lot No. : 20200526

Manufacturer : CHANGZHOU SHUANGMA MEDICAL DEVICES CO., LTD Supplier : CHANGZHOU SHUANGMA MEDICAL DEVICES CO., LTD

Test Performed : Selected test(s) as requested by applicant

Sample Receiving Date : Aug 12, 2020

Testing Period : Aug 12, 2020 - Aug 24, 2020

Test Result(s) : Unless otherwise stated the results shown in this test report refer only to the

sample(s) tested, for further details, please refer to the following page(s).

Signed for and on behalf of

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd Testing Center

Sara Guo (Account Executive)

July notes

Dongjing Liu / Hailian Xuan (Authorized Signatory)



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Test Result

EN 14683:2019+AC:2019 Medical Face Masks-Requirements and Test Methods

Clause 5.2 Performance Requirement

Clause 5.2.2 Bacterial Filtration Efficiency (BFE)

(EN 14683:2019+AC:2019 Annex B)

Sample: A

Test Side Inside

Approximately 60 cm² Test Area

Flow Rate 28.3 L/min

Pre-Conditioning Minimum of 4 hours at 21±5°C and 85±5% R.H.

Dimensions of test specimen ~170mm x 150mm Positive Control Average : 2585.5 CFU : < 1 CFU Negative Monitor Count Mean Particle Size : $3.0 \pm 0.3 \mu m$

Test bacteria : Staphylococcus aureus ATCC 6538

| Test Item | Specimen No. | Result | |
|------------------------------------------|--------------|--------|--|
| Bacterial Filtration Efficiency (BFE) | 1 | 99.9% | |
| | 2 | 99.9% | |
| | 3 | 99.9% | |
| | 4 | 99.9% | |
| | 5 | 99.9% | |

Remark:

- 1) Performance Requirement: Type I≥95%, Type II≥98%, Type IIR ≥98%
- 2) The number of specimens that shall be tested is minimum 5, but can be greater and shall be increased if necessary to allow for an AQL(Acceptable Quality Level) of 4%.



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Clause 5.2.3 Breathability

(EN 14683 :2019+AC:2019 Annex C)

Sample: A

Test Side Randomly test in different location (1 around and 4 away from the centric

point) on each of the 5 masks

Pre-Conditioning Minimum of 4 hours at 21±5°C and 85±5% R.H.

4.9 cm² Test Area Flow Rate 8 I/min

| Specimen No. | Test Area No. | Different Pressure for each tested area (Pa/cm²) | The average value for each test specimen (Pa/cm²) | |
|--------------|---------------|--------------------------------------------------|---------------------------------------------------|--|
| | 1-1 | 28.2 | _ | |
| | 1-2 | 36.7 | | |
| 1 | 1-3 | 39.4 | 33 | |
| | 1-4 | 31.1 | | |
| | 1-5 | 30.3 | | |
| | 2-1 | 30.8 | | |
| | 2-2 | 36.2 | | |
| 2 | 2-3 | 39.3 | 36 | |
| | 2-4 | 32.1 | | |
| | 2-5 | 39.6 | 7 | |
| | 3-1 | 28.9 | | |
| | 3-2 | 32.8 | 7 | |
| 3 | 3-3 | 33.0 | 33 | |
| | 3-4 | 36.3 | | |
| | 3-5 | 32.1 | | |
| 4 | 4-1 | 31.9 | | |
| | 4-2 | 32.0 | 7 | |
| | 4-3 | 37.0 | 36 | |
| | 4-4 | 38.9 | 7 | |
| | 4-5 | 39.6 | 7 | |
| 5 | 5-1 | 35.5 | | |
| | 5-2 | 37.6 | 1 | |
| | 5-3 | 39.3 | 37 | |
| | 5-4 | 35.4 | | |
| | 5-5 | 38.7 | 7 | |

Remark:

 Performance Requirement: Type I<40 Pa/cm², Type II<40 Pa/cm², Type IIR<60 Pa/cm²
 The number of specimens that shall be tested is minimum 5, but can be greater and shall be increased if necessary to allow for an AQL(Acceptable Quality Level) of 4%.



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Clause 5.2.4 Splash Resistance

(ISO 22609:2004)

Sample: A

Test Blood Pressure : 16.0kPa

Pre-Conditioning : Minimum of 4 hours at 21±5°C and 85±5% R.H.

Distance of the mask to the tip of cannula : 300±10mm

| Test Specimen# | Penetration on inside surface | Conclusion | Test Specimen# | Penetration on inside surface | Conclusion |
|----------------------------|-------------------------------|------------|-------------------|-------------------------------|------------|
| 1 | None Seen | Pass | 17 | None Seen | Pass |
| 2 | None Seen | Pass | 18 | None Seen | Pass |
| 3 | None Seen | Pass | 19 | None Seen | Pass |
| 4 | None Seen | Pass | 20 | None Seen | Pass |
| 5 | None Seen | Pass | 21 | None Seen | Pass |
| 6 | None Seen | Pass | 22 | None Seen | Pass |
| 7 | None Seen | Pass | 23 | None Seen | Pass |
| 8 | None Seen | Pass | 24 | None Seen | Pass |
| 9 | None Seen | Pass | 25 | None Seen | Pass |
| 10 | None Seen | Pass | 26 | None Seen | Pass |
| 11 | None Seen | Pass | 27 | None Seen | Pass |
| 12 | None Seen | Pass | 28 | None Seen | Pass |
| 13 | None Seen | Pass | 29 | None Seen | Pass |
| 14 | None Seen | Pass | 30 | None Seen | Pass |
| 15 | None Seen | Pass | 31 | None Seen | Pass |
| 16 | None Seen | Pass | 32 | None Seen | Pass |
| Number | of Pass: | iss: 32 | | | |
| Overall result: Acceptable | | | | | |

Remark:

- 1) Performance Requirement Type I: N/A, Type II: N/A, Type IIR: ≥16.0kPa
- 2) Test was conducted within 60s after removal from conditioning chamber.
- 3) An acceptable quality limit of 4.0% is met for a single sampling plan when 29 or more of the 32 tested specimens show pass results.



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Clause 5.2.5 Microbial Cleanliness

(EN 14683:2019+AC:2019 Annex D and EN ISO 11737-1:2018)

Sample: A

| Test Specimen# | Mask Weight(g) | Total Bioburden, (CFU/mask) | Total Bioburden, (CFU/g) |
|----------------|----------------|--------------------------------|-----------------------------|
| 1# | 3.19 | <3 | <0.94 |
| 2# | 3.21 | 6 | 1.87 |
| 3# | 3.22 | 3 | 0.93 |
| 4# | 3.28 | 24 | 7.32 |
| 5# | 3.20 | 6 | 1.88 |

Remark: Performance Requirement: Type I≤30 CFU/g, Type II≤30 CFU/g, Type IIR≤30 CFU/g





The statement of conformity in this test report is only based on measured values by the laboratory and does not take their uncertainties into consideration.

End of Report



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